

Translation

PATENT COOPERATION TREATY

PCT

PCT/JP2003/013561



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference YG2003-31PCT	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2003/013561	International filing date (day/month/year) 23 October 2003 (23.10.2003)	Priority date (day/month/year) 25 October 2002 (25.10.2002)
International Patent Classification (IPC) or national classification and IPC A61K 31/045, 35/78, 45/00, A61P 19/08, 19/10, A23L 1/30		
Applicant JAPAN SCIENCE AND TECHNOLOGY AGENCY		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☐ (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

Date of submission of the demand 30 January 2004 (30.01.2004)	Date of completion of this report 10 May 2004 (10.05.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/JP 03/13561

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-7, 15-18	YES
	Claims	8-14	NO
Inventive step (IS)	Claims	1-7, 15-18	YES
	Claims	8-14	NO
Industrial applicability (IA)	Claims	1-18	YES
	Claims		NO

2. Citations and explanations

- Document 1: JP 2000-23637 A (Kabushiki Kaisha Ehime Kankitsu Shigen Kaihatsu Kenkyusho), 25 January 2000
- Document 2: JP 2000-136181 A (Biology Oriented Technological Research Advancement Institute), 16 May 2000
- Document 3: JP 7-215849 A (Eisai Co., Ltd.), 15 August 1995
- Document 4: JP 10-36256 A (Masayoshi YAMAGUCHI), 10 February 1998
- Document 5: US 5935996 A (Taishi Foods Co., Ltd.), 10 August 1999
- Document 6: JP 10-218767 A (Nissho Corp.), 18 August 1998
- Document 7: JP 10-279492 A (Shizuoka Prefecture), 20 October 1998
- Document 8: JP 2000-191526 A (Kabushiki Kaisha Marumiya), 11 July 2000
- Document 9: WO 99/23587 A2 (CEREP), 14 May 1999

Claims 8-14

The inventions that are set forth in claims 8-14 lack novelty and do not involve an inventive step in the light of document 1 cited in the international search

report.

Document 1 discloses food products that comprise β -cryptoxanthin. Therein, it is impossible to differentiate the inventions that are disclosed in document 1 from the inventions that are set forth in claims 8-14 as food products or feeds in the light of the specification "for the prevention and treatment of osteopathy" in the disclosures of claims 8-14.

In the written response dated 21 April 2004, the applicant asserts that the inventions set forth in claims 8-14 are 'use' inventions in which the feature of being "for the prevention and treatment of osteopathy" is a compositional requirement, and that consequently, the inventions in question differ from the inventions that are disclosed in document 1. However, the inventions which belong to the technical field pertaining to food products, i.e. the inventions that are indicated as being "food products," cannot be differentiated as invented food products from well-known food products that comprise the same components, regardless of whether or not they are applied "for the prevention and treatment of osteopathy," and therefore it is common practice to deny the novelty thereof. Consequently, the assertions of the applicant are not applicable.

Claims 1-7 and 15-18

The inventions that are set forth in claims 1-7 and 15-18 are not disclosed in any of the documents that are cited in the international search report; therefore, they are novel and involve an inventive step.

Specifically, documents 1-9, which are considered to be the most closely related prior art documents, do not disclose osteogenesis promoters that comprise β -cryptoxanthin as an active ingredient; nor do they disclose a method to screen for osteogenesis promoters or

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active components for the prevention and treatment of osteopathy, wherein said method employs β -cryptoxanthin as the lead compound.

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Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

Application No.
Patent No.

Publication date
(day/month/year)

Filing date
(day/month/year)

Priority date (valid claim)
(day/month/year)

See supplemental sheet

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure
(day/month/year)

Date of written disclosure
referring to non-written disclosure
(day/month/year)

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: VI . 1

JP 2002-338485 A

27 November 2002

22 May 2001

(Hideko IIZUKA)

[E, X]